

# INTERNATIONAL SEARCH REPORT

International Patent No.

PCT/IT 03/00523

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC 7	B21B1/46	B22D11/06 B21B1/26 B21B37/00 B21B37/34
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
IPC 7 B21B B22D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)		
EPO-Internal, WPI Data, PAJ		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 634 257 A (YOSHIMURA YASUTSUGU ET AL) 3 June 1997 (1997-06-03) column 10, line 48 -column 14, line 55; figure 1	1,13
A	US 6 276 436 B1 (PLESCHIUTSCHNIGG FRITZ-PETER) 21 August 2001 (2001-08-21) column 4, line 13 - line 16; figure 1	1,13
A	WO 00 20141 A (ARVEDI GIOVANNI) 13 April 2000 (2000-04-13) cited in the application page 5, line 35 -page 6, line 28	1,16,17, 22
A	WO 99 29446 A (BODIN ANDRE ;HOOGO VENS STAAL BV (NL)) 17 June 1999 (1999-06-17) page 8, line 7 - line 17; figure 1	19
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
<b>* Special categories of cited documents :</b> *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
4 December 2003		16/12/2003
Name and mailing address of the ISA European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer  Petrucchi, L

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2 327 375 A (KVAERNER METALS CONT CASTING) 27 January 1999 (1999-01-27) page 7, line 7 - line 25; figure 3 -----	23,24
A	WO 00 59650 A (ARVEDI GIOVANNI) 12 October 2000 (2000-10-12) the whole document -----	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/IT 03/00523

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5634257	A	03-06-1997	JP 3174457 B2	11-06-2001
			JP 7308701 A	28-11-1995
			BR 9502048 A	19-12-1995
			CN 1116136 A , B	07-02-1996
			DE 19518144 A1	23-11-1995
US 6276436	B1	21-08-2001	AU 753199 B2	10-10-2002
			BR 9707100 A	27-07-1999
			CN 1222419 A	14-07-1999
			DE 19639297 A1	26-03-1998
			JP 11179505 A	06-07-1999
			AT 202735 T	15-07-2001
			AU 5108098 A	29-07-1999
			DE 59703945 D1	09-08-2001
			EP 0834364 A2	08-04-1998
			US 2002017375 A1	14-02-2002
			ES 2160877 T3	16-11-2001
WO 0020141	A	13-04-2000	IT 1302582 B1	29-09-2000
			AT 220578 T	15-08-2002
			AU 2544699 A	26-04-2000
			BR 9914168 A	19-06-2001
			CA 2343945 A1	13-04-2000
			CN 1321112 T	07-11-2001
			DE 69902185 D1	22-08-2002
			DE 69902185 T2	30-01-2003
			EP 1117493 A1	25-07-2001
			ES 2180276 T3	01-02-2003
			WO 0020141 A1	13-04-2000
			PL 347167 A1	25-03-2002
			TR 200100884 T2	21-02-2002
			US 2001011565 A1	09-08-2001
WO 9929446	A	17-06-1999	NL 1007731 C2	09-06-1999
			AT 253993 T	15-11-2003
			AU 757456 B2	20-02-2003
			AU 1512799 A	28-06-1999
			BR 9813441 A	10-10-2000
			CA 2313535 A1	17-06-1999
			CN 1281394 T	24-01-2001
			EP 1037721 A1	27-09-2000
			JP 2001525255 T	11-12-2001
			WO 9929446 A1	17-06-1999
			PL 340998 A1	12-03-2001
			SK 8492000 A3	07-11-2000
			TR 200001625 T2	21-12-2000
			TW 430575 B	21-04-2001
			US 6616778 B1	09-09-2003
			ZA 9811209 A	09-06-1999
GB 2327375	A	27-01-1999	AU 8450498 A	16-02-1999
			WO 9904915 A1	04-02-1999
WO 0059650	A	12-10-2000	WO 0059650 A1	12-10-2000
			AT 244078 T	15-07-2003
			AU 3532199 A	23-10-2000
			DE 69909332 D1	07-08-2003
			EP 1196256 A1	17-04-2002